Author Accepted Version. Final version published as: Temple, J. B., Kelaheer, M., & Paradies, Y. (2020). Experiences of racism among older Aboriginal and Torres Strait Islander people: Prevalence, sources, and association with mental health. *Canadian Journal on Aging/La Revue canadienne du vieillissement*, 39(2), 178-189.

Experiences of Racism among older Aboriginal and Torres Strait Islander

People:

Prevalence, Sources and Association with Mental Health

Abstract

This paper presents the first nationally representative analysis of the association between racial discrimination and psychological distress among older Aboriginal and Torres Strait Islander people. Results show (1.) experiences of racism (as measured by unfair treatment and avoidance) are encountered by a significant minority of older Aboriginal and Torres Strait Islander people, (2.) there is a clear association between experiences of racism and psychological distress, with these results being robust to a range of confounding factors and complex survey design features, and (3.) the associations between racism and distress are amplified by the severity of racism and when occurring in contexts or situations crucial to the human capital development of older people (eg., health care, education and the workplace). Our findings underscore the importance of culturally safe health and social services/programs and further the imperative to address discrimination in all its forms.

Keywords: Aging, Psychological Distress, Aboriginal and Torres Strait Islanders, Racism.

Experiences of Racism among older Aboriginal and Torres Strait Islander

People:

Prevalence, Sources and Association with Mental Health

Introduction

Recent studies have uncovered the considerable prevalence of discrimination experienced by older Australians, particularly in the workforce (AHRC, 2015; O'Loughlin et al., 2017). Apart from acting as a barrier to older people's full involvement in their families, communities and workplaces, experiences of age discrimination have been shown to be associated with poor health outcomes in the later life course (Lyons et al., 2017; Han and Richardson, 2015). Australian studies of age discrimination have focused predominately on the non-Indigenous population. Although qualitatively different, surprisingly little is known about the experiences of racial discrimination faced by older Aboriginal and Torres Strait Islander people and the resultant health impacts. This is despite racial discrimination being a considerable social problem in Australia, with one estimate valuing the cost to the Australian economy at about 38 billion dollars annually, or 3% of Gross Domestic Product attributable to deleterious health outcomes (Elias and Paradies, 2016).

Racial discrimination, or racism, can be conceptualized as unfair and avoidable disparities in power, resources, capacities or opportunities centered on ethnic, racial, religious or cultural differences (Berman & Paradies, 2010). It can manifest through cognitive beliefs (e.g. stereotypes), feelings (e.g. prejudice) or practices / behaviors that are discriminatory. Overall, racism can result in negative health impacts through several key pathways: (1) cognitive, emotional and physical strain, stress or damage impacting

upon mental, physical, spiritual or social wellbeing; (2) reduced engagement in adaptive behaviours (e.g. physical activity); (3) maladaptive behaviours (e.g. alcohol and drug use); (4) compromised access to key health-promoting settings (e.g. employment, education etc.); (5) attenuated benefit from everyday routine activities (e.g. sleep); and (6) heightened contact with health-damaging exposures (e.g. toxic substances) (Paradies et al., 2013). There is now considerable international evidence that racism has a detrimental impact on a range of mental and physical health outcomes (Paradies et al. 2015), behaviours and life outcomes (Paradies 2016).

Among Aboriginal and Torres Strait Islander adults, racism has been associated with poor self-assessed health status (Paradies & Cunningham, 2012a), mental ill-health (Ziersch et al., 2011), psychological distress (Kelaher et al., 2014), depression (Paradies & Cunningham, 2012b) reduced general physical and mental health (Larson et al., 2007), and poor oral health outcomes among Indigenous adults (Ben et al., 2014a & 2014b). Kelaher et al. (2014) found that those experiencing racism in health-care settings were almost twice as likely to have high or very high levels of psychological distress compared to Indigenous people who experienced racism in other settings.

Among Aboriginal and Torres Strait Islander youth, racism has also been associated with emotional / behavioral difficulties and suicidal thoughts (Zubrick et al., 2005), anxiety, depression, suicide risk, mental ill-health, physical illness (Priest et al., 2011a, 2011b & 2012), poor oral health (Jamieson et al., 2011; Jamieson et al., 2013), as well as increased alcohol, tobacco and marijuana use (Zubrick et al., 2005). In a recent Australian national longitudinal study, racism was associated with child mental ill-health, asthma, obesity and poor sleep outcomes (Shepherd et al., 2017), while data

from the same survey indicate that racism was associated with poor general health and increased anger, worry and depression for adult primary carers (Bodkin-Andrews et al., 2017).

Given the diversity and breadth of these findings, it is surprising that no empirical Australian study has examined the experiences of racial discrimination in the later lifecourse and the potential implications for health. In this paper, we seek to address this research omission. With the availability of nationally representative data from the Australian Bureau of Statistics (ABS), we answer two questions: (1.) How prevalent is the reporting of racism (as measured by unfair treatment and avoidance) by older Aboriginal and Torres Strait Islanders? and (2.) Is there an association between instances of racism and poor mental health outcomes?

Methods

Data

Data for this study are from the National Aboriginal and Torres Strait Islander Social Survey (NATSISS) conducted by the Australian Bureau of Statistics (ABS) between September 2014 and June 2015. Data were collected using a Computer-Assisted Interviewing questionnaire in a personal interview. The NATSISS is a multi-stage survey, consisting of Aboriginal and Torres Strait Islanders living in private dwellings in remote and non remote areas, including discrete communities, across all Australian States and Territories. Discrete communities include “regions uninhabited or intended to be inhabited predominately by Aboriginal and Torres Strait Islander people, with housing or infrastructure that is either owned or managed on a community basis” (ABS,

2016). Persons living in non-private dwellings such as hospitals or nursing homes were not included in this survey.

In the development phase of the survey, the ABS sought input from numerous stakeholders, including Aboriginal and Torres Strait Islander peak bodies, government departments with Aboriginal and Torres Strait Islander responsibilities and from the ABS Advisory group for Aboriginal and Torres Strait Islander Statistics. Prior to field deployment, ABS interviewers had received extensive training in cultural awareness and the collection methods used by interviewers varied across geographies. For example, some items on the questionnaire were reworded or concepts changed to take account of language and cultural differences. In community areas, Aboriginal and Torres Strait Islander facilitators accompanied ABS interviewers to assist with the data collection.

Following screening for the presence of an Aboriginal or Torres Strait Islander person living in the household, a response rate of 83.8% was achieved in remote Australia and 78.1% in non-remote Australia. The confidentialised survey data file contains records on 11,178 persons who self-identify as being an Aboriginal and/or Torres Strait Islander.

Herein, we restrict the sample to $n=2,730$ persons aged 45 and over, which is common in studies of aging among Aboriginal and Torres Strait Islander people for several reasons (Cotter et al., 2007; Waugh and Mackenzie, 2011; Gubhaju et al., 2013). Firstly, there is a considerable gap in life expectancy of about 1 decade between Aboriginal and non-Indigenous Australians, reducing the proportion of the population living into

advanced old age (ABS, 2013; AIHW, 2017). Second, many conditions and comorbidities as well as frailties commonly associated with aging are early onset in this population, as is the case with Canadian First Nations seniors (AIHW, 2016; Gubhaju et al., 2013; Hyde et al., 2016; FNIGS and Walker, 2017). Third, in recognition of the above two points, government programs such as those governing access to specific aged care services are available to Aboriginal and Torres Strait Islanders from earlier ages when compared to non-Indigenous Australians.

From this group of n=2730 persons aged 45 and over, n=124 respondents could not adequately respond to questions on unfair treatment, leaving a final sample of 2,606 records. For analysis of the association between racism and mental health, the ABS could not adequately determine a Kessler score (the measure of psychological distress we employ) for a small number of cases (n=26) and were therefore omitted from this analysis.

Measures

The NATSISS survey instrument covers a range of subjects encompassing language and culture, health, employment and access to services. Importantly, the 2015 cross section of NATSISS included measures of discrimination as well as psychological distress.

The discrimination module available in NATSISS consists of 6 questions to gauge experiences of discrimination and avoidance. Firstly, respondents were asked “In the last 12 months, have you had any of the following experiences because you are

Aboriginal and/or Torres Strait Islander?” A prompt card was displayed to the respondent with the following selections (multiple selections were possible):

- Called names, teased or sworn at
- Heard racial comments or jokes
- Ignored or served last while accessing services or buying something
- Not trusted
- Told you are less intelligent
- Left out, refused entry or told you don’t belong
- Spat at or had something thrown at you
- Any other experience that was unfair

For all respondents who indicated at least one from the above list, the respondent was further requested to answer questions related to the frequency (over the previous 12 months) and the type of experience (from the list above) in the most recent incident. Following, respondents were asked “In which situation were you treated unfairly (because you are an Aboriginal and/or Torres Strait Islander), the most recent time?”.

A prompt card was displayed with the following options:

- Applying for work, or at work
- At home, by neighbors or at somebody else’s house
- At school, university, training course or other educational setting
- While doing any sporting, recreational or leisure activities
- By the police, security people, lawyers or in a court of law
- By doctors, nurses or other staff at hospitals or doctor’s surgeries
- When accessing government services
- When seeking any other services

- On the internet or telephone
- By members of the public
- Any other situation

Finally, respondents were asked whether they avoided “situations because you feel you have been treated unfairly in the past because you are Aboriginal and/or Torres Strait Islander?” A prompt card was shown similar to that outlined above.

In addition to recording instances of discrimination, NATSISS collected information on mental health and psychological distress. The specific measure of psychological distress used was Kessler’s K5. The K5, although not a diagnostic tool, is a widely used screening instrument for psychological distress based on the respondent’s emotional state in the 4 weeks prior to the interview (ABS, 2016; Anderson et al., 2013). Consistent with earlier Australian research in the Aboriginal population, the reliability of this scale was high in NATSISS ($\alpha=0.863$) (Kelaher et al., 2014). Following other examples in the literature, we indicate a ‘high’ or ‘very high’ score on Kessler’s measure as indicating psychological distress (Kelaher et al., 2014; ABS, 2014).

Statistical Model and Estimation of Variance

To examine the association between experiences of discrimination and psychological distress we fitted logistic regression models. Using the raw logit coefficients, we calculated odds ratios (OR) which measure the change in the odds of experiencing psychological distress given an experience of racism, once all other factors in the model are controlled for.

Drawing upon previous Australian research, variables known to be associated with psychological distress among Aboriginal and Torres Strait Islanders were included in the regressions to control for potentially confounding effects (Kelaher et al., 2014). These included age, gender, education and region of residence. We test a further range of variables including age, gender, English speaking, employment status, education, remoteness, household composition, marital status and household income. Variables were entered into the regression and significance and improvement to model fit assessed using the Bayesian Information Criteria following Raftery's procedure (Raftery, 1995). With all models specified, we checked the conditioning of the matrix of independent variables to investigate any collinearity influence (Belsley et al, 1980). The condition numbers and variance inflation factors were small providing support for the model specification.

Due to the complex survey design, adjustments are necessary to generate correct variance estimates. The NATSISS includes 250 replicate weights on the data file to adjust for sample design and non-response. Utilizing an algorithm developed by Winter (2008), we employed the delete-one jackknife method to make the necessary replicate adjustments (Wolfer, 1985). All analyses were conducted using Stata via the ABS Remote Access Data Laboratory.

Results

Prevalence of Experiences of Unfair Treatment and Avoidance

Results from the NATSISS show that experiences of racism were common among older Aboriginal and Torres Strait Islander people (Table 1). Approximately 31% of respondents cited an instance of unfair treatment in the previous 12 months, and 15%

actively avoided situations because of previous experiences of unfair treatment. Of those who have experienced unfair treatment, over 20% cite it as occurring “always” or “often” and a further 40% report that it occurs “sometimes”.

[TABLE 1]

The term ‘unfair treatment’ covers a range of experiences that have the potential to adversely affect mental health. About 45% of those reporting unfair treatment, cite being subject to racial jokes or comments in the most recent occurrence. Almost 1 in 5 also report being called names, teased or sworn at (17.9%) of being ignored or served last while accessing services or buying something.

Context of Racism

There is considerable variation in the contexts or settings in which older persons experience these types of unfair treatment and avoidance behaviours (Table 2). The most prevalent sources or setting for experiencing unfair treatment include by members of the public (30.4%) or applying for work or at work (19.4%). Under 5% of respondents cited a healthcare, legal or educational setting as a source of unfair treatment in the last instance. Legal and healthcare settings are, however, cited by over 1 in 5 respondents who have engaged in avoidance behaviours (20.8% for health care and 24.6% for a legal setting). Accessing government services (22.1%), applying for work or at work (26.6%) and members of the public (24%) are also cited as the key sources and situations avoided specifically because of past instances of unfair treatment.

[TABLE 2]

Exclusion and Mental Health

From these descriptive statistics, it is clear that instances of unfair treatment (31.3%) and avoidance (14.5%) are reported by a significant minority of older Aboriginal and Torres Strait Islanders. For many, unfair treatment a regular occurrence with considerable heterogeneity in the types and sources of discriminatory behaviour. An important question therefore, is in this population of older Aboriginal and Torres Strait Islanders, do we observe an association between racism and mental health outcomes?

Results presented in Table 3 provide preliminary support for this hypothesis. Of those reporting an instance of unfair treatment, about 41% were in psychological distress compared with 27% of those who did not report unfair treatment. Over half of those who engaged in avoidance behaviours (52.6%) were in psychological distress compared with 28% of those who did not avoid situations. Importantly, in these data we also observe an interaction between unfair treatment, avoidance and the propensity to be in psychological distress. Whereas about one quarter of those who have not experienced unfair treatment or avoidance were in distress, those who had experienced unfair treatment only (34%), avoidance only (46%) or both avoidance and unfair treatment (54%) had a considerably higher risk of distress.

[TABLE 3]

Although these differences point to a potential association between discrimination and psychological distress, it is important to control for factors that are associated with

distress. For example, we observe that distress is higher among certain demographic groups (Table 3). Groups reporting statistically significantly higher rates of psychological distress included younger persons (relative to older), women (relative to men), those living in households containing both indigenous and non-indigenous persons (relative to Aboriginal and Torres Strait Islander households only), persons separated, divorced or never married (versus married), the unemployed and those not in the labour market (versus the employed) and those with lower levels of household income are all at a heightened risk of psychological distress (Table 3). Following the model selection techniques outlined earlier, a reduced list of control variables was included in the final regression analyses. These variables included age, gender, employment status, marital status and household income.

Even when extensive controls were included, unfair treatment and avoidance was strongly associated with psychological distress (Table 4). Aboriginal and Torres Strait Islanders who cite an instance of unfair treatment were about 2 times more likely to be in psychological distress, compared with those who did not experience it in the last year (Model 1 OR=1.95 95% CI = 1.41, 2.69). Individuals who actively avoided situations because they were Aboriginal or Torres Strait Islanders were almost 3 times more likely to be in psychological distress relative to those who did not avoid situations (Model 2 OR = 2.81 95% CI = 1.89, 4.17).

[TABLE 4]

To examine the relative role of unfair treatment and avoidance with psychological distress, we include a categorical variable measuring their intersection in model 3

(Combined). Compared to those who had not experienced discrimination or avoidance, those who had experienced unfair treatment *only* were about 1.5 times more likely to experience psychological distress (OR = 1.51 95% CI = 1.02, 2.23). Those who had experienced avoidance *only* were about 2.5 times more likely to experience psychological distress (OR = 2.47 95% CI = 1.10, 5.55) and respondents reporting avoidance *and* unfair treatment were about 3.3 times more likely to experience psychological distress (OR = 3.34 95% CI = 2.17, 5.13) when compared to those reporting neither.

These results indicate an association between the severity of racism and psychological distress, such that when avoidance is combined with unfair treatment, the resulting psychological distress is exacerbated. A further proxy for the severity of racism is the reported frequency of unfair treatment, which we included in an additional regression model (Model 4). Those who cited unfair treatment as occurring “always” or “often” were over 3 times more likely to be in psychological distress, when compared to those who did not report unfair treatment (OR=3.34 95% CI = 2.05, 5.46). Those who reported unfair treatment occurring “sometimes” were just under 3 times more likely to report distress, relative to those who had not reported it (OR=2.86 95% CI = 1.87, 4.39).

Sources of Unfair Treatment, Avoidance and Mental Health

Separate regression models were also fitted to examine the association between sources of unfair treatment, types of situations avoided and psychological distress (Table 5). Of importance to this group of older Aboriginal and Torres Strait Islander people, we note that over half of persons reporting unfair treatment or avoiding health facilities (52.1%),

home (54.5%), education (55.6%) and service settings (50.2%) were in psychological distress. Settings with a minimum 2-fold increase in levels of distress included education (OR = 2.95 95% CI 1.05, 8.27), health care (OR=2.21 95% CI 1.14, 5.31), services (OR = 2.21 95% CI 1.26, 3.85) and work (OR = 2.01 95% CI 1.18, 3.44). Each of these settings represent a crucial point of contact germane to the human capital of older Aboriginal and Torres Strait Islanders.

[TABLE 5]

Of note, the finding regarding the strength of experiencing racism in health care settings and resultant poor mental health outcomes is consistent with results in an analysis of Victorian Aboriginal Australians aged 18 and over (Kelaher et al, 2014). Unsurprisingly, we also observe an association between experiencing unfair treatment or avoidance of health care settings and low levels of trust in health institutions such as hospitals and GPs (Table 6). About 60% of those who have not experienced health care avoidance or unfair treatment “strongly agree” or “agree” with the statement that “hospitals can be trusted to do the right thing by you” (62.6%). Less than 20% of those experiencing health care avoidance or unfair treatment agree with this statement (18.1%). Similarly, when asked “How much do you agree or disagree that your doctor can be trusted?”, less than 7% of those who do not cite an instance of health care avoidance or unfair treatment strongly disagree or disagree with this. In contrast, one quarter of those who do cite an instance of health care avoidance or unfair treatment strongly disagree or disagree with this statement.

[TABLE 6]

Discussion and Conclusions

Large national level surveys show that Aboriginal and Torres Strait Islander people are a population with a considerably high risk of psychological distress (ABS, 2014; Gubhaju et al., 2013). Whereas about 9% of non-Indigenous Australians aged 55 and over experienced distress in 2012-13, approximately one quarter of Aboriginal and Torres Strait Islanders were in this situation (ABS, 2014). This figure is relatively consistent with levels of psychological distress that we observe in the NATSISS from 2014-15. Motivated by recent studies of younger (child and adult) Aboriginal and Torres Strait Islander populations, we sought to measure the prevalence of experiencing racial discrimination and its association with mental health in the later life course.

Using nationally representative data, we show experiences of racism (as measured by unfair treatment and avoidance) are encountered by a significant minority of older Aboriginal and Torres Strait Islanders, with 31% reporting unfair treatment and 17% reporting engaging in avoidance behaviours. There is considerable heterogeneity in the sources and contexts in which older people experience discriminatory behaviour. Among the most prevalent sources or setting for experiencing unfair treatment include by members of the public (30.4%) or applying for work or at work (19.4%). Although some settings such as healthcare or educational settings were cited in only 5% of cases as sources of unfair treatment, levels of avoidance were considerably higher (over 1 in 5).

Of concern to policy makers, unfair treatment (19%) or avoidance (26%) in the workplace or job search was noted by a sizeable proportion of those experiencing discrimination. The poorer levels of labour force participation among older Aboriginal

and Torres Strait Islander people has been noted elsewhere, and contributes significantly to lower levels of superannuation, with obvious implications for their financial wellbeing and health in later life (Bianchi et al., 2016). Although qualitatively different, the high prevalence of racial discrimination faced in this context also mirrors the considerable prevalence of age based discrimination experienced by older non-Indigenous Australians in the workforce (AHRC, 2015; O'Loughlin et al., 2017). With population ageing placing increasing demands on the Australian labour market, eliminating discriminatory practices that impact on the mature age labour force participation of Aboriginal and non-Indigenous Australians is critical (Temple and McDonald, 2017; AHRC, 2015).

Apart from uncovering the types and sources of racial discrimination experienced by older Aboriginal and Torres Strait Islander people, we expected and found a strong association between experiencing racism and psychological distress. Although we do not contend that racial discrimination alone accounts for the heightened level of psychological distress among older Aboriginal and Torres Strait Islanders, it is certainly an important contributing factor. Indeed, the effects of racial discrimination in causing psychological distress are now well established in Australia and internationally (Lewis et al., 2015; Paradies et al., 2015). As exposure to discrimination and associated psychological distress is more common among younger people (Greer, 2017), research and interventions have tended to focus on younger people particularly in Australia. Herein, we highlight the negative impacts of discrimination on the mental health of older Aboriginal and Torres Strait Islander people.

Moreover, we demonstrate that avoidance behaviours, particularly when experienced in tandem with racial discrimination, can also have serious deleterious effects. Avoidance has been shown to exacerbate the effects of racism on psychological effects in a number of populations (Kaholokula et al., 2017; Villegas-Gold et al., 2014; Vines et al., 2006). There are several explanations for this effect. Avoidance may prevent people from receiving help and services that they need which in turn leads to greater psychological distress. In the case of older people this may also lead to more serious health problems, or in the case of employment, contribute to poorer financial outcomes. An alternate explanation is that avoidance is disempowering and in itself contributes to greater psychological distress (Kaholokula et al., 2017; Fernando, 1984; Thomas, 2009). These explanations are not mutually exclusive and either may explain why avoidance had more pernicious effects than discrimination. Moreover, it may be that older Aboriginal and Torres Strait Islander people begin avoidance behaviours as they were specifically strongly affected by previous experiences of unfair treatment, indicating that future instances of unfair treatment may also have particularly deleterious outcomes. The additive effects of discrimination and avoidance on psychological distress are not surprising as they suggest both adverse exposures and an inability to control this exposure. Relatedly, we also show that persons with more regular experiences of unfair treatment (as a measure of the severity of racism) are at a 3 fold risk of distress relative to those who have not reported it.

We further demonstrate that when discrimination (through unfair treatment or avoidance) occurs in settings crucial to the human capital development of Aboriginal and Torres Strait Islander people, the resultant psychological distress is considerable. Specifically, we observe this association in settings such as health care, education, the

workplace or accessing government services. The finding builds on previous research in showing that discrimination leads to avoidance of health care services (Kelaher et al., 2014). Concerns about the negative impacts of racism in health have led to the development of policy, interventions and training to improve cultural safety (Kelaher et al., 2014). A focus on developing approaches to reduce the discrimination experienced by older Aboriginal and Torres Strait Islander people in the community and aged care sector is less developed. Developing approaches to ensure that older Aboriginal and Torres Strait Islander people are not exposed to discrimination or exposed to events that trigger avoidance is crucial to supporting their independence and delivering the promise of aged care reforms underway in Australia.

Recent aged care reforms have focussed on services becoming more client centred to support older people to remain at home and independent (ANAO, 2017). Clearly a situation where people are exposed to racism in the context of receiving services or are avoiding going to services is antithetical to this aim. A recent audit of the delivery of aged care service to Aboriginal and Torres Strait Islander people suggested that, in contrast to the rest of the Australian population, the growth of the uptake of homecare packages among Aboriginal and Torres Strait Islander people was at the higher needs level rather than at the basic/minimum needs level (ANAO, 2017). This suggests that until the need for services is unavoidable, Aboriginal and Torres Strait Islander people may not be being offered and/or seeking homecare packages. Failure to receive homecare may lead to a higher level of dependence in the future.

The Australian government audit acknowledged that there are barriers specific to accessing aged care services that disproportionately impact older Aboriginal and Torres

Strait Islander Australians, that current service models do not always have the time to build up trust and that Aboriginal and Torres Strait Islander service providers are often not aware of the packages available (ANAO, 2017). The report also suggested that the number of service providers addressing the need of Aboriginal and Torres Strait Islander people is increased.

While this is laudable it is important that measures are put in place to ensure that the care provided is culturally safe, supported by ongoing research in the area. As argued by Davy et. al in their detailed systematic review of care for older Aboriginal and Torres Strait Islanders, “having the support of culturally safe primary health-care and aged-care services that understand the importance of maintaining an Indigenous identity and promoting independence will be crucial for the well-being of older Indigenous peoples” (Davy et al., 2016:90). Indeed, one potential barrier to achieving these aims is the considerable underrepresentation of Aboriginal people in aged care, health and allied services – including at the policy development and decision making level (LoGuidice, 2016).

Limitations and Summary

In interpreting our findings, it is important to recognize the studies limitations. The NATSISS data are cross sectional and we cannot draw causal inferences about the relationship between disability exclusion and psychological distress. Unfortunately, there is a dearth of nationally representative longitudinal data with measures of racism and psychological wellbeing in Australia, in which the relevant pathways between each could be explored. Relatedly, our measures of discrimination and avoidance are subject to recall bias, and again longitudinal data would be required to negate this effect.

A further limitation of the use of cross sectional data in examining racism and psychological distress in the later life is selectivity. As is well established in the economics of aging literature, selective mortality removes a disproportionate number of older people with low levels of economic resources and poorer health from the population (Dansiger et al., 1983; Borsch-Supan, 1992). This is of importance to this study as Aboriginal and Torres Strait Islander life expectancy is one decade lower than non-indigenous Australians (AIHW, 2017). Moreover, this selectivity effect may also operate through migrating out of the survey population through entry to aged care facilities (Dansiger et al., 1983), a point that is particularly pertinent given that NATSISS do not include persons in non-private dwellings. For example, it may be that the risk of psychological distress reduces in the 65 and over group due to the poorest sections of the aged having a higher mortality risk, or being more likely to enter a managed care facility. Longitudinal data is required to measure these complex movements and further data collections would be necessary to examine the generalizability of these findings presented herein to individuals living in cared accommodation and other institutions (non-private dwellings).

Noting these limitations and potential extensions, although several Australian studies have examined the experiences and consequences of racial discrimination for younger and working age Aboriginal and Torres Strait Islander people, no study (to our knowledge) has examined the association of experiences of racism with mental health in later life. This represented a significant research gap. Our study shows that experiences of racism are encountered by a significant minority of older Aboriginal and Torres Strait Islanders and that it occurs in a variety of contexts and situations. We observe a clear association between experiences of racism and distress, with these

results being robust to a range of confounding factors and complex survey design features, and the associations are amplified by the severity of racism and occur in contexts or situations crucial to the human capital development of older Aboriginal and Torres Strait Islander people (eg., health care, education and the workplace).

These findings underscore the importance of delivering culturally safe health and social services/employment programs, particularly in the context of aged care reforms underway and the significantly lower levels of mature age labour force participation influencing financial wellbeing. More generally, discrimination including racism, irrespective of its consequences is a violation of human rights and should be prevented in any reasonable society. The moral imperative to address racism is further underscored by the evidence presented herein showing exposure to racial discrimination is associated with deleterious mental health.

References

Australian Bureau of Statistics (ABS). (2013). Life Tables for Aboriginal and Torres Strait Islander Australians, 2010-2012. Catalogue Number 3302.0.55.003. Canberra: Australian Bureau of Statistics.

Australian Bureau of Statistics (ABS). (2014). Australian Aboriginal and Torres Strait Islander Health Survey: First Results, 2012-13 – Australia. Table 7.3. Catalogue number 47270Do007_20122013. Canberra: Australian Bureau of Statistics.

Australian Bureau of Statistics (ABS). (2016). National Aboriginal and Torres Strait Islander Social Survey, 1014-15. Catalogue number 4714.0. Canberra: Australian Bureau of Statistics.

Australian Human Rights Commission (AHRC). (2015). National prevalence survey of age discrimination in the workplace. Sydney: Australian Human Rights Commission.

Australian Institute of Health and Welfare (AIHW). (2016). Australian Burden of Disease Study: Impact and causes of illness and death in Aboriginal and Torres Strait Islander People. Australian Burden of Disease Study series no.6. Cat. No. BOD7. Canberra: Australian Institute of Health and Welfare.

Australian Institute of Health and Welfare (AIHW). (2017). Trends in Indigenous mortality and life expectancy, 2001-2015: evidence from the Enhanced Mortality Database. Cat. No. IHW 174. Canberra: Australian Institute of Health and Welfare.

Anderson, T. M., Sunderland, M., Andrews, G., Titov, N., Dear, B. F. & Sachdev, P. S. (2013). The 10-Item Kessler Psychological Distress Scale (K10) as a Screening Instrument in Older Individuals. *American Journal of Geriatric Psychiatry*, 21(7), 596-606.

Australian National Audit Office (ANAO). (2017). Indigenous Aged Care. Canberra: Australian Government.

Belsley D, Kuh E, Welsch R. (1980). Regression diagnostics: Identifying influential data and sources of collinearity. New York: John Wiley & Sons, Inc.

Ben, J., Jamieson, L.M., Priest, N., Parker, E.J., Roberts-Thomson, K.F., ... Paradies, Y. (2014a). Experience of racism and tooth brushing among pregnant Aboriginal Australians: exploring psychosocial mediators. *Community Dental Health*, 31(3), 1-8.

Ben, J., Paradies, Y., Priest, N., Parker, E.J., Roberts-Thomson, K.F., Lawrence, H.P., ... Jamieson, L.M., (2014b). Self-reported racism and experience of toothache among pregnant Aboriginal Australians: the role of perceived stress, sense of control, and social support. *Journal of Public Health Dentistry*, 74(4), 301-309.

Bianchi, R., Drew, M., Walk, A., Wiafe, O. (2016). Retirement adequacy of Indigenous Australians: A baseline study. *Economic Papers*, 35(4), 359-374.

Bodkin-Andrews, G., Lovelock, R., Paradies, Y., Denson, N., Franklin, C. and Priest, N., (2017). Not My Family: Understanding the Prevalence and Impact of Racism Beyond Individualistic Experiences. In *Indigenous Children Growing Up Strong* (pp. 179-208). Palgrave Macmillan UK.

Borsch-Supan, A. (1992). Saving and Consumption Patterns of the Elderly. *Journal of Population Economics*, 5(4), 289-303.

Coles, T., Byles, J., Dow, B., Tavener, M. (2013). Advances in gerontology research and education: perspectives from the Australian Association of Gerontology.

Australasian Journal on Ageing, 32(s2), 40-45.

Cotter, P., Anderson, I. Smith, L.R. (2007) Indigenous Australians: Ageing without longevity. In: A. Borowski, S. Encel and E. Ozanne (eds), *Longevity and social change in Australia* (p. 65-98). Sydney: University of New South Wales Press Ltd.

Danziger, S., Van der Gaag, J., Smolensky, E., Taussig, M. (1983). The Life-Cycle Hypothesis and the Consumption Behaviour of the Elderly. *Journal of Post Keynesian Economics*, 5(2), 208-27.

Davy, C., Kite, E., Aitken, G., Dodd, G., Rigney, J., Hayes, J., Van Emden, J. (2016) What keeps you strong? A systematic review identifying how primary health-care and aged-care services can support the well-being of older Indigenous peoples.

Australasian Journal on Ageing, 35(2), 90-97.

Elias, A., Paradies, Y. (2016). Estimating the mental health costs of racial discrimination. *BMC Public Health*, 16, 1205.

Fernando, S. (1984). Racism as a cause of depression. *International Journal of Social Psychiatry*, 30(1-2), 41-9.

First Nations Information Governance Centre (FNIGC) and Walker, J. (2017). Aging and Frailty in First Nations Communities. *Canadian Journal on Aging*. In Press, First View.

Greer, T.M., Spalding, A. (2017). The role of age in understanding the psychological effects of racism for African Americans. *Cultural Diversity and Ethnic Minority Psychology*, 23(4), 588-594.

Gubhaju, L., McNamara, J., Banks, E., Joshy, G., Raphael, B., Williamson, A., Eades, S. (2013). The overall health and risk factor profile of Australian Aboriginal and Torres Strait Islander participants from the 45 and up study. *BMC Public Health*, 13, 661.

Han, J., Richardson, V. (2015). The relationships among perceived discrimination, self perceptions of aging, and depressive symptoms: A longitudinal examination of age discrimination. *Aging and Mental Health*, 19(8), 747-755.

Hyde, Z., Flicker, L., Smith, K., Atkinson, D., Fenner, S., Skeat, L., ... Lo Giudice, D. Prevalence and incidence of frailty in Aboriginal Australians, and association with mortality and disability. *Maturitas*, 87, 89-94.

Jamieson, L. M., Paradies, Y, Gunthorpe, W., Cairney, S.J., Sayers, S.M. (2011). Oral health and social and emotional well-being in a birth cohort of Aboriginal Australian young adults. *BMC Public Health* 11, 656.

Jamieson, L. M., Steffens, M., & Paradies Y. (2013). Associations between discrimination and dental visiting behaviours in an Aboriginal Australian birth cohort. *Australian & New Zealand Journal of Public Health*, 37(1), 92-93.

Kaholokula, J., Antonio, M., Ing, C., Hermosura, A., Hall, K., Knight, R., Wills, T. (2017) The effect of perceived racism on psychological distress mediated by venting and disengagement coping in Native Hawaiians. *BMC Psychology* 5:2.

Kelaher M, Ferdinand A, Paradies, Y. (2014). Experiencing racism in health care: the mental health impacts for Victorian Aboriginal communities. *Medical Journal of Australia*, 201, 1-4.

Larson, A., Gilles, M., Howard, P.J., & Coffin, J. (2007). It's enough to make you sick: the impact of racism on the health of Aboriginal Australians. *Australian & New Zealand Journal of Public Health*, 31(4), 322-329.

Lewis TT, Cogburn CD, Williams DR. (2015). Self-Reported Experiences of Discrimination and Health: Scientific Advances, Ongoing Controversies, and Emerging Issues. *Annual Review of Clinical Psychology*, 11:407-40.

LoGiudice, D. (2016). The health of older Aboriginal and Torres Strait Islander peoples. *Australasian Journal on Ageing*, 35(2), 82-85.

Lyons, A., Alba, B., Heywood, W., Fileborn, B., Minichello, V., Barret, ... Dow, B. (2017). Experiences of ageism and the mental health of older adults. *Aging and Mental Health*. In Press, First View

O'Loughlin, L., Kendig, H., Hussain, R., Cannon, L. (2017). Age discrimination in the workplace: The more things change. *Australasian Journal on Ageing*, 36(2), 96-101.

Paradies, Y. & Cunningham, J. (2012a). The DRUID study: racism and self-assessed health status in an indigenous population. *BMC Public Health*, 12(131), 1-12.

Paradies, Y. & Cunningham, J. (2012b). The DRUID study: Exploring mediating pathways between racism and depressive symptoms among Indigenous Australians. *Social Psychiatry and Psychiatric Epidemiology*, 47(2), 165-173.

Paradies, Y., Priest, N., Ben, J., Truong, M., Gupta, A., Pieterse, A., ... Gee, G. (2013). Racism as a determinant of health: A protocol for conducting a systematic review and meta-analysis. *Systematic Reviews*, 2, 85.

Paradies Y, Ben J, Denson N, Elias A, Priest N, Pieterse A. (2015). Racism as a Determinant of Health: A Systematic Review and Meta-Analysis. *Plos One*, 10, 9

Paradies, Y. (2016). Racism and Health. The International Encyclopedia of Public Health, 2nd edition. S. R. a. C. Quah, W.C., Oxford: Academic Press. 6: 249-259.

Parkinson, L. (2016). Identifying the gaps: Indigenous ageing. *Australasian Journal on Ageing*, 35(1), 7.

Priest, N., Paradies, Y., Gunthorpe, W., Cairney, S.J., & Sayers, S.M. (2011a). Racism as a determinant of social and emotional wellbeing for Aboriginal Australian youth. *The Medical Journal of Australia*, 194(10), 546-550.

Priest, N., Paradies, Y., Stewart, P., & Luke, J. (2011b). Racism and health among urban Aboriginal young people. *BMC Public Health* 11, 568.

Priest, N., Paradies, Y., Stevens, M., Bailie, R. (2012). Exploring relationships between racism, housing and child illness in remote indigenous communities. *Journal of Epidemiology and Community Health*, 66(5), 440-447.

Raftery, A. (1995). Bayesian Model Selection in Social Research. *Sociological Methodology*, 25, 111-163.

Shepherd, C. J., Li, J., Cooper, M. N., Hopkins, K. D., & Farrant, B. M. (2017). The impact of racial discrimination on the health of Australian Indigenous Children aged 5-10 years: analysis of national longitudinal data. *International Journal for Equity in Health*, 16, 116.

Stata Corporation. (2017) Stata/SE 15.0 for Windows 64 bit. College Station: Texas.

- Temple, J., McDonald, P. (2017). Population Ageing and the Labour Force: 2000-2015 and 2015-2030. *Australasian Journal on Ageing*, 36(4), 271-278.
- Thomas, S, Gonzales-Prendes, A. (2009). Powerlessness, anger and stress in African American women: Implications for physical and emotional health. *Health Care for Women International*, 30(1-2)
- Villegas-Gold, R., Yoo, H.C. (2014). Coping with discrimination among Mexican American college students. *Journal of Counseling Psychology*, 61(3), 404-13.
- Vines, A., Baird, D., McNeilly, M., Hertz-Picciotto, I., Light, K., Stevens, J. Social correlates of the chronic stress of perceived racism among black women. *Ethnicity and Disease*, 16(1), 101-107.
- Winter, N. (2008). SVR: Stata module to compute estimates with survey replication based standard errors. Available from:
<https://ideas.repec.org/c/boc/bocode/s427502.html> Accessed: March 2017.
- Wolfer, K. (1985). Introduction to Variance Estimation. New York: Springer-Verlag.
- Ziersch, A. M., Gallaher, G., Baum, F., Bentley, M. (2011). Responding to racism: Insights on how racism can damage health from an urban study of Australian Aboriginal people. *Social Science & Medicine*, 73, 1045-1053.
- Zubrick, S. R., Silburn, S. R., Lawrence, D. M., Mitrou, F. G., Dalby, R. B., Blair, E.,

M., ... Li, J. (2005). Western Australian Aboriginal Child Health Survey: The Social and Emotional Wellbeing of Aboriginal Children and Young People. Perth: Curtin University of Technology and Telethon Institute for Child Health Research.

Minerva Access is the Institutional Repository of The University of Melbourne

Author/s:

Temple, JB;Kelaher, M;Paradies, Y

Title:

Experiences of Racism among Older Aboriginal and Torres Strait Islander People: Prevalence, Sources, and Association with Mental Health

Date:

2020-06-01

Citation:

Temple, J. B., Kelaher, M. & Paradies, Y. (2020). Experiences of Racism among Older Aboriginal and Torres Strait Islander People: Prevalence, Sources, and Association with Mental Health. *Canadian Journal on Aging / Revue canadienne du vieillissement*, 39 (2), pp.178-189. <https://doi.org/10.1017/S071498081900031X>.

Persistent Link:

<http://hdl.handle.net/11343/253842>